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EXAMINER	
MAI, KEVIN S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,170	BOZIONEK ET AL.	
	Examiner	Art Unit	
	KEVIN S. MAI	2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-29,31-34,44-52 and 54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-29,31-34,44-52 and 54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action has been issued in response to Applicant's Amendment filed January 11, 2010.

2. Claim 53 has been canceled. Claims 24 and 48 have been amended. Claim 54 has been added. Claims 24-29, 31-34, 44-52 and 54 are pending in the application.

Response to Arguments

3. Applicant's arguments filed January 11, 2010 have been fully considered but they are not persuasive.

4. Applicant's arguments with respect to claim 24 have been considered but they are not persuasive. Applicant argues that the cited art does not teach or suggest the bandwidth test recited in claim 24. For example, there is not bandwidth testing done in the system disclosed by Albuquerque et al. Albuquerque et al. only teaches a computation of available bandwidth by a bandwidth manager overseeing a particular private network. The bandwidth manager taught by Albuquerque et al. would fail whenever other networks are traversed, such as the internet, because without a test there would be no information about available bandwidth. Examiner disagrees. Paragraph [0066] of Albuquerque discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determined in part the highest speed at which data an/ore information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows are still

able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities. As such it is seen that Albuquerque is able to identify the link speed between the AP and the terminal, and/or between terminals. Accordingly since it is able to identify the link speed it is seen to do perform bandwidth tests. As to the argument about Albuquerque failing when other networks are traverses, there is no requirement in applicant's invention and accordingly whether Albuquerque would or would not fail is not relevant. Furthermore, paragraph [0025] discloses communication between the AP and the terminals, as well as between the terminals, is performed over links. The links can be established through substantially any type of communication channel including among others, the Internet. As such since Albuquerque is able to identify link speeds and these links can occur over the internet it is seen that Albuquerque would not fail in such situations.

5. Applicant's arguments with respect to claim 48 are substantially the same as those for claim 24 and are addressed similarly.

6. Applicant's arguments with respect to claim 54 have been considered but they are not persuasive. Applicant argues that none of the cited art teaches a reduction of a lower priority process such that the one or more lower priority processes are still operational. Indeed, the cited art teaches away form such a limitation. For example, Albuquerque et al. teaches that any lower priority process be eliminated or rejected in the event a higher priority process requires all the bandwidth being used by that or reserved for that process to be released. Examiner disagrees. Paragraph [0044] of Albuquerque discloses low priority flows may be completely dropped losing

their reserved bandwidth to higher priority flows and have to resubmit bandwidth requests or to transmit on a best-effort mode obtaining bandwidth when available. Best effort mode can be used for computer data traffic. Thus it is seen that these lower priority flows have been assigned to best effort and are accordingly still operational since best effort mode can be used for computer data traffic.

7. Applicant's arguments with respect to the remaining claims are substantially the same as those for the claims above and are addressed similarly.

Claim Objections

8. In view of the cancellation of claim 53 the pending claim objection has been withdrawn.

Claim Rejections - 35 USC § 112

9. In view of the arguments and amendments the pending claim rejections under 35 USC § 112 have been withdrawn.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 24-29, 31, 32, 44-51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2004/0158644 to Albuquerque et al. (hereinafter "Albuquerque").

14. **As to Claim 24,** Albuquerque discloses **a method for substantially real time transmission of a [software component] after receiving a demand [for the software component] from a requesting terminal of a network comprised of a server and a plurality of terminals, the requesting terminal being a terminal of the plurality of terminals, the method comprising:**

triggering a bandwidth test, the bandwidth test comprising sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop and receiving assembled data relating to the bandwidth available for each terminal (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network. Paragraph [0066] discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determined in part the highest speed at which data an/ore information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows are still able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities);

prior to initiating transmission [of the software component], determining via the bandwidth test if a present bandwidth is sufficient for transmission [of the demanded software component] to the requesting terminal by identifying at least one lower priority process currently using bandwidth of the existing network that each has a lower priority than the demand and computing an amount of available bandwidth resources that is obtainable from reducing bandwidth resources assigned to the at least one lower priority

process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5),

if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit [the software component] to the requesting terminal, reducing or freezing the at least one lower priority processes and transmitting the software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Figure 5); **and**

if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit [the software component] to the requesting terminal, inhibiting or rejecting transmission [of the software component] (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or

rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected).

Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

15. **As to Claim 25,** Albuquerque discloses **the method according to claim 24 wherein the amount of available bandwidth resources is also calculated according to a specified upper limit of a transmission time for transmitting the software component to the requesting terminal** (Paragraph [0043] of Albuquerque discloses the bandwidth manager calculating a number of packets to be transmitted per frame and a time needed to satisfy the request. Thus the bandwidth that is needed is based on the time needed to satisfy the request).

16. **As to Claim 26,** Albuquerque discloses **the method according to claim 25, wherein the amount of available bandwidth resources is available to the requesting terminal and is**

included in the demand (Paragraph [0028] of Albuquerque discloses when a terminal wishes to reserve bandwidth for a given flow, it sends a bandwidth reservation request message to the AP, containing the desired bandwidth amount).

17. **As to Claim 27,** Albuquerque discloses **the method according to claim 26 wherein the server has access to the software component and the amount of available bandwidth resources** (Paragraph [0004] of Albuquerque discloses the data and other information are supplied to and from the terminals through the AP. Thus it is seen that the AP has access to the information being sent. Paragraph [0029] discloses the AP being able to calculate if there is enough bandwidth available in the network. Accordingly it is seen that it has access to the amount of available bandwidth resources).

18. **As to Claim 28,** Albuquerque discloses **the method according to claim 27 wherein the bandwidth test provides a positive test result if the amount of available bandwidth resources is suitable for a real time application, or wherein the bandwidth test provides a positive test result if the amount of available resources is suitable for a substantially real time application** (Paragraph [0023] of Albuquerque discloses the invention supports at least two main classes of traffic, real-time and non-real-time traffic. Accordingly real-time traffic would have corresponding bandwidth requests and as such a positive result would necessitate that the amount of available bandwidth is suitable for that real-time traffic).

19. **As to Claim 29,** Albuquerque discloses **the method according to claim 27 wherein information regarding the present bandwidth is made available by a network resource manager and is updated on request by the server or after a period of time** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network. Paragraph [0029] discloses the AP finding the bandwidth available in the network in response to a request and accordingly it is seen that the BM would update at least in response to a request)

20. **As to Claim 31,** Albuquerque discloses **the method according to claim 29 wherein if the amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit the software component, a message is sent to the requesting terminal, the message comprising a temporary rejection or a permanent rejection of the load request** (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected).

21. **As to Claim 32,** Albuquerque discloses **the method according to claim 31 further comprising displaying the message to a user of the requesting terminal** (Paragraph [0050] of Albuquerque disclose the sender of the flow is notified of the confirmation or rejection of the request).

22. **As to Claim 44,** Albuquerque discloses **the method of claim 24 wherein the amount of bandwidth necessary to transmit the software component is at least partially defined by a transmission rate requirement provided in the demand** (Paragraph [0043] of Albuquerque discloses the request includes the number of bytes per second requested).

23. **As to Claim 45,** Albuquerque discloses **the method of claim 44 wherein the amount of available bandwidth resources is calculated by a network resource manager that is connected to the server** (Paragraph [0033] of Albuquerque discloses the BM operating from the AP and, accordingly, is seen to be connected to the AP).

24. **As to Claim 46,** Albuquerque discloses **the method of claim 45 wherein the network resource manager is connected to an available bandwidth memory that has data on bandwidths assigned to processes using network bandwidth resources and priorities for these processes** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities).

25. **As to Claim 47,** Albuquerque discloses **the method of claim 46 wherein the network resource manager is also connected to at least one of the terminals and wherein the available bandwidth memory is periodically updated with new data for the bandwidths assigned to processes using network bandwidth resources and priorities for these processes**

(Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities. Since the BM can monitor the available bandwidth in the network it is seen to be able to be updated. Figure 2 disclose the BM being connected to the terminals).

26. **As to Claim 48,** Albuquerque discloses **the computer configured for connection to a plurality of terminals of a network and configured to transmit [a software component] to a requesting terminal of the plurality of terminals after receiving a demand [for the software component] from the requesting terminal if bandwidth necessary for transmitting [the software component] to the requesting terminal is determined to be available, the computer comprising:**

a network resource allocation device, the network resource allocation device configured to assign resources of the network to the terminals and reassign resources of the network from one terminal to another terminal (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows);

a performance characteristic providing device connected to the network resource allocation device (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows);

a network resource distribution memory connected to the network resource allocation device and the performance characteristic providing device, the network resource

distribution memory having stored data on bandwidths assigned to processes using bandwidth resources of the network and priorities for these processes (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities);

a network resource test device connected to at least one of the network resource allocation device, the performance characteristic providing device, and the network resource distribution memory, the network resource test device configured to oversee a bandwidth test, the bandwidth test comprising sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop in a communication path between each terminal and the computer, and receiving assembled data relating to bandwidth available for each terminal via any associated part connections in each communication path (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network. Paragraph [0066] discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determined in part the highest speed at which data an/ore information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows

are still able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities);

the performance characteristic providing device configured to determine whether an amount of bandwidth exists that is sufficient for transmission [of the demanded software component] by accessing the data stored on the network resource distribution memory to identify at least one lower priority process using bandwidth of the network that each has a lower priority than the demand in the network and calculate an amount of available bandwidth resources that is obtainable from reducing bandwidth resources of the network assigned to the at least one lower priority process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5); **and**

the network resource allocation device configured to reduce or freeze the network resources assigned to the at least one lower priority processes and transmit [the software component] to the requesting terminal if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit the

software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Figure 5)**; and**

the network resource allocation device configured to inhibit or reject transmission [of the software component] if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit the software component to the requesting terminal (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected)**.**

Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or

ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

27. **As to Claim 49,** Albuquerque discloses **the computer of claim 48 wherein the computer is a server or is comprised of a server** (Paragraph [0006] of Albuquerque discloses that admission to all traffic coming into or though the network is controlled by the AP. As such it is at least seen to be a network server in that it aides in routing management)**.**

28. **As to Claim 50,** Albuquerque discloses **the computer of claim 48 wherein bandwidth demand data is also stored in the network resource distribution memory** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Since the BM is able to reserve bandwidth for flows according to requests it is seen that it would also have access to demand data)**.**

29. **As to Claim 51,** Albuquerque discloses **the computer of claim 48 wherein the performance characteristic providing device is a portion of the network resource allocation device** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows)**.**

30. **As to Claim 54,** Albuquerque discloses **a method for substantially real time transmission of a [software component] after receiving a demand [for the software**

component] from a requesting terminal of a network comprised of a server and a plurality of terminals, the requesting terminal being a terminal of the plurality of terminals, the method comprising:

triggering a bandwidth test (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network);

prior to initiating transmission [of the software component], determining via the bandwidth test if a present bandwidth is sufficient for transmission [of the software component] to the requesting terminal by identifying at least one lower priority process currently using bandwidth of the existing network that each has a lower priority than the demand and computing an amount of available bandwidth resources that is obtainable from reducing bandwidth resources assigned to the at least one lower priority process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0044] discloses when low priority flows are dropped loosing their reserved bandwidth they can transmit on best-effort mode obtaining bandwidth when available. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5),

if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit [the software component] to the requesting terminal, reducing the at least one lower priority process such that the at least one lower priority process is still able to utilize some bandwidth, and transmitting the software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Paragraph [0054] and Table 3 disclose the flows are given a maximum allocation as well as a base allocation. Paragraph [0056] explains that the allocated bandwidth is slightly higher than the requested bandwidth to allow for temporary vacations in the bite rate of the flow. Accordingly it is seen that the system is capable of reducing flows to a base allocation as opposed to a maximum. Figure 5)**; and if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit [the software component] to the requesting terminal, inhibiting or rejecting transmission of [the software component]** (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected),

Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

31. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pub. No. 2003/0097443 to Gillett et al. (hereinafter "Gillett").

32. **As to Claim 33,** Albuquerque discloses **the method according to claim 31.** Albuquerque does not explicitly disclose **further comprising generating a load request in response to the temporary rejection of the load request.**

However, Gillett discloses this. Paragraph [0059] of Gillett discloses if the edge server lacks sufficient capability to service the request at the required level of performance, the manager may reject or redirect the request. Redirecting the request is seen to be generating a load request in response to the temporary rejection.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of claim 31 as disclosed by Albuquerque, with redirecting a response as disclosed by Gillett. One of ordinary skill in the art would have been motivated to combine to apply a known technique to a known device ready for improvement. Both systems deal with rejecting requests according to measuring current capabilities, as such it would be obvious to apply techniques used in one on the other. In this situation redirecting requests is well known in the art to improve service for clients by attempting to check capabilities at more than one server to improve the chances that the request will be accepted. Accordingly it would be obvious to implement in Albuquerque to improve request acceptance.

33. **As to Claim 34,** Albuquerque discloses **the method according to claim 31.** Albuquerque does not explicitly disclose **wherein the permanent rejection is generated after a plurality of temporary rejections have been generated for a load request for the software component or after determining that the amount of bandwidth necessary to transmit the software component is greater than a maximum available bandwidth.**

However, Gillett discloses this. Paragraph [0059] of Gillet discloses the service level manager may redirect the request to another server. This process may continue until the request is directed to a server having sufficient capacity to handle the request or until some other condition arises that results in the termination of the request. Thus it is seen that after a plurality of temporary rejections have been generated (multiple redirections) the request will either be handled or rejected.

Examiner recites the same rationale to combine used in claim 33.

34. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pat. No. 6222856 to Krishnan et al. (hereinafter "Krishnan").

35. **As to Claim 52,** Albuquerque discloses **the computer of claim 48.** Albuquerque does not explicitly disclose **wherein the network resource allocation device is also configured to periodically update the data stored in the network resource distribution memory.**

However, Krishnan discloses this. Column 3 lines 30-45 of Krishnan disclose the bandwidth throttling system periodically updates the measured bandwidth parameter in the BT (bandwidth throttling) objects. During the periodic update, the bandwidth throttling system only updates the bandwidth measurements for the BT objects on the active list.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of claim 48 as disclosed by Albuquerque, with periodically updating the bandwidth data as disclosed by Krishnan. One of ordinary skill in the art would have been motivated to combine to identify whether any activity has occurred during a past period of preset duration (Column 10 line 59 - column 11 line 5 of Krishnan). Furthermore it is seen as applying a known technique to a similar device.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 4891805 A - Multiplexer with dynamic bandwidth allocation to Fallin; David B.

US 6075772 A - Methods, systems and computer program products for controlling data flow for guaranteed bandwidth connections on a per connection basis to Brown; Patrick G. et al.

US 6411601 B1 - System and method for securing available communications network resources to Shaffer; Shmuel et al.

US 6459681 B1 - Method and system for connection admission control to Oliva; Stephen Arthur

US 6529499 B1 - Method for providing quality of service for delay sensitive traffic over IP networks to Doshi; Bharat Tarachand et al.

US 6795445 B1 - Hierarchical bandwidth management in multiservice networks to Kabie; Samch A. et al.

US 6956857 B2 - Guaranteed admission and incremental bandwidth allocation in a packet network to Goldman; Stuart O.

US 7039712 B2 - Network connection setup procedure for traffic admission control and implicit network bandwidth reservation to Valavi; Anand et al.

US 20020126699 A1 - Method and apparatus for controlling traffic loading of different service levels in a cable data system to Cloonan, Thomas J. et al.

US 20050198130 A1 - Method and apparatus for controlling multicast group subscriptions to Bosloy, Jonathan L. et al.

US 20020029274 A1 - Bandwidth allocation method for distribution of multimedia content over a network where bandwidth is allocated based on value of variables that maximize cost function to ALLEN A et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN S. MAI whose telephone number is (571)270-5001. The examiner can normally be reached on Monday through Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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